

REMARKS

The Applicant respectfully requests further examination and reconsideration in view of the amendments above and the arguments set forth fully below. Claims 1-44 were previously pending in this application. Within the Advisory Action mailed on December 13, 2004 (hereafter "Advisory Action"), claims 1-44 have been rejected. New independent claim 45 has been added. Accordingly, claims 1-45 are currently pending in this application.

Claims 1-44

Within the Office Action mailed on October 6, 2004 (hereafter "Office Action"), claims 1-44 have been rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,253,188 issued to Witek et al. (hereafter "Witek").

Within the Advisory Action, claims 1-44 have been rejected as being anticipated by Witek. Specifically, it is stated that the parametric search of Witek can be applied to any node of the hierarchical data structure. The Applicant respectfully disagrees with this conclusion.

Witek teaches a system and method for providing classified ads over the Internet. Internet users can connect to a Newspaper web server and central Web application server to search for and obtain classified ads. Ad records are stored in ad database servers 20 for providing classified ad records on request to application servers 16. To search the ad records, the search process is divided into two principle parts. The first part includes a system entry and pre-selection sequence, and the second part includes a record selection sequence (Witek, col. 12, lines 10-13). More specifically, in the first part the user enters the system and specifies the category of classified ads to be searched. Thereafter, as the user navigates to the respective selected category, the user further specifies a subcategory for the particular category selected (Witek, col. 12, lines 27-37). The selected category and subcategory pair is identified by a category/subcategory ID 46. The second part of the search process includes entering a formal record selection query containing the specific parameters for the ad records the user wishes to see. **The second part of the search process, which includes entering search parameter values, can only be performed after a category and subcategory have been specified by the user.**

Within the Advisory Action, it is stated that it is well known in the art that "hierarchical data structure can only include a category not a subcategory, then, the parametric search of Witek still can be applied to that category." The Applicant is unclear as to the meaning and relevance of this statement. Witek very clearly teaches that the user must first specify a

category/subcategory pair. Witek also very clearly teaches that specifying a category/subcategory pair is accomplished by navigating two levels of a hierarchical data structure. The first level requires the user to make a selection from a category, and the second level requires the user to make a selection from a subcategory. At neither the first level nor the second level is the user able to enter parameter values to be used in a parametric search. Therefore, as the Applicant argued in the previous Amendment and Response to Office Action, Witek does not teach applying a parametric search at any node within a hierarchical data structure.

Independent claim 1 is directed to a method of accessing information within a directory tree structure. The method of claim 1 comprises the steps of formatting a searchable database into the directory tree structure, wherein the directory tree structure includes nodes comprising a collection of related data and branches comprising links between the nodes, further wherein each specific node provides a corresponding set of parameters by which each related item of data corresponding to the specific node is defined by setting each parameter with a corresponding value associated with the data item, thereby forming a set parameter, accessing a particular node within the directory tree structure, setting one or more search parameters corresponding to the set of parameters of the particular node, and performing a parametric search from any node within the directory tree structure using the one or more set search parameters corresponding to the particular node to match the one or more search parameters to the set parameters for each item of data corresponding to the particular node, thereby generating one or more matching discrete data items. As discussed above, Witek does not teach applying a parametric search at any node within a hierarchical data structure. For at least these reasons, the independent claim 1 is allowable over the teachings of Witek.

Claims 2-11 depend on the independent claim 1. As described above, the independent claim 1 is allowable over the teachings of Witek. Accordingly, claims 2-11 are all also allowable as being dependent on an allowable base claim.

Independent claim 12 is directed to a research system for accessing information within a directory tree structure. The research system of claim 12 comprises means for formatting a searchable database into the directory tree structure, wherein the directory tree structure includes nodes comprising a collection of related data and branches comprising links between the nodes, further wherein each specific node provides a corresponding set of parameters by which each related item of data corresponding to the specific node is defined by setting each parameter with a corresponding value associated with the data item, thereby forming a set parameter, means for accessing a particular node within the directory tree structure, means for setting one or more

search parameters corresponding to the set of parameters of the particular node, and means for performing a parametric search from any node within the directory tree structure using the one or more set search parameters corresponding to the particular node to match the one or more search parameters to the set parameters for each item of data corresponding to the particular node, thereby generating one or more matching discrete data items. As discussed above, Witek does not teach applying a parametric search at any node within a hierarchical data structure. For at least these reasons, the independent claim 12 is allowable over the teachings of Witek.

Claims 13-22 depend on the independent claim 12. As described above, the independent claim 12 is allowable over the teachings of Witek. Accordingly, claims 13-22 are all also allowable as being dependent on an allowable base claim.

Independent claim 23 is directed to a research system for accessing information within a directory tree structure. The research system of claim 23 comprises a research server configured to format a searchable database into the directory tree structure, wherein the directory tree structure includes nodes comprising a collection of related data and branches comprising links between the nodes, further wherein each specific node provides a corresponding set of parameters by which each related item of data corresponding to the specific node is defined by setting each parameter with a corresponding value associated with the data item, thereby forming a set parameter, to access a particular node within the directory tree structure, to set one or more search parameters corresponding to the set of parameters of the particular node, and to perform a parametric search from any node within the directory tree structure using the one or more set search parameters corresponding to the particular node to match the one or more search parameters to the set parameters for each item of data corresponding to the particular node, thereby generating one or more matching discrete data items. As discussed above, Witek does not teach applying a parametric search at any node within a hierarchical data structure. For at least these reasons, the independent claim 23 is allowable over the teachings of Witek.

Claims 24-34 depend on the independent claim 23. As described above, the independent claim 23 is allowable over the teachings of Witek. Accordingly, claims 24-34 are all also allowable as being dependent on an allowable base claim.

Independent claim 35 is directed to a network of devices for accessing information within a directory tree structure. The network of devices of claim 35 comprises one or more computer systems configured to establish a connection with other systems, and a research server coupled to the one or more computer systems to format a searchable database into the directory tree structure, wherein the directory tree structure includes nodes comprising a collection of related data and branches comprising links between the nodes, further wherein each specific node

provides a corresponding set of parameters by which each related item of data corresponding to the specific node is defined by setting each parameter with a corresponding value associated with the data item, thereby forming a set parameter, to access a particular node within the directory tree structure, to set one or more search parameters corresponding to the set of parameters of the particular node, and to perform a parametric search from any node within the directory tree structure using the one or more set search parameters corresponding to the particular node to match the one or more search parameters to the set parameters for each item of data corresponding to the particular node, thereby generating one or more matching discrete data items. As discussed above, Witek does not teach applying a parametric search at any node within a hierarchical data structure. For at least these reasons, the independent claim 35 is allowable over the teachings of Witek.

Claims 36-44 depend on the independent claim 35. As described above, the independent claim 35 is allowable over the teachings of Witek. Accordingly, claims 36-44 are all also allowable as being dependent on an allowable base claim.

Claim 45

By the above amendments, new independent claim 45 has been added. The independent claim 45 includes the limitation of “accessing a particular node within the directory tree structure utilizing a search module, the search module includes a keyword search, a hierarchical search, a dichotomous key search, and a parametric search” (emphasis added).

Within the Office Action it is stated that Witek teaches a dichotomous key search. To support this assertion, Figure 3, element 70, and column 16, lines 27-50 are cited. The Applicant respectfully disagrees with this conclusion. Column 16, lines 27-50 of Witek refer to a mapped field 70 within the secondary selection parameters 62. Witek teaches that the mapped fields 70 are “yes-no” secondary features that provide details concerning the ad record subject matter. In particular, Witek teaches that the yes-no fields 70 provide up to 32 features which the user can simply check off in a selection menu (such as element 146 in Figure 10) to further describe the ad to be viewed. However, this is no different than a parametric search in which the parameters are limited to yes or no. Within the Office Action, it is stated that the present specification defines a “dichotomous key search” as the ability to instruct users through an answer and question dialog, often yes or no answers, and that Witek also gives the user the option of answering questions by checking the boxes in the selection menu. It is therefore concluded within the Office Action that these two search options are the same. The Applicant respectfully

disagrees with the conclusion that the selection menu 146 including yes-no fields 70 of Witek is the same as a dichotomous key search as described in the present application.

It is well known in the art that a parametric search is a search performed that fits a number of simultaneous criteria, or parameters. Parametric searching allows people to find items of interest based on an individual item's parameters, or particular characteristics. Data is structured into categories and subcategories and associated with parameters that describe those categories. How do parametric search engines work? Typically, a knowledge base is developed with many searchable data types associated with an instance, or item of data. These data types likely include text, text arrays, numeric ranges, boolean values, and named lists for each unique data item. All of the above types are called "parameters" or attributes of the data item.

The definition of a parametric search, as defined within the present specification, is consistent with that which is well known in the art. Specifically, the present specification refers to customizable parametric search technology that allows users to precisely locate desired information by searching parametric data that is contained within each node of a directory tree structure (Specification, page 14, lines 24-26). Each node represents a category. The types of parameters include, but are not limited to, true-false, selected list, range of values, and alphabetic list (Specification, page 24, lines 5-6).

As the definition of a parametric search is well known in the art, it is not necessary to define "parametric search" within the present claims.

It is well known in the art that a dichotomous key is a two-branched key where choosing between two characteristics continues through the key until identification is complete. There are many examples on the internet to support the well known nature of "a dichotomous key", following are just a few:

From Merriam-Webster Online Dictionary, "Dichotomous key - a key for the identification of organisms based on a series of choices between alternative characters."

From www.mansfield.ohio-state.edu, "Questions are arranged hierarchically where more general questions are asked first, with questions becoming more specific asked subsequently. Questions are dichotomous meaning that each have two possible answers, with each answer distinguishing the path to the next question."

From www.lucidcentral.com, “Dichotomous - meaning of the word ‘two-branching’.

Structure of the key is that each question acts as a tree branch that has smaller branches proceeding it.”

From www.bioedonline.org, “Dichotomous key - pairs of contrasting descriptions.”

The definition of a dichotomous key search, as defined within the present specification, is consistent with that which is well known in the art. Specifically, as presented in the response to the previous Office Action, the present specification refers to a dichotomous key search as “a binary key structure or two-node tree. This structure is used as a decision tree mechanism to instruct users in deciphering information given in an answer or question dialog, often a yes or no answer. Examples of this include diagnosing a medical disease, diagnosing a mechanical problem, and working a system such as classifying a biological species by physical attributes” (Specification, page 15, lines 5-7).

As the definition of a dichotomous key search is well known in the art, it is not necessary to define “dichotomous key search” within the present claims.

Witek teaches a yes-no field 70 (Figure 3) which is one of a secondary selection parameters 62. By the definition within Witek, the yes-no field 70 is a parameter. Specifically, the “yes-no” field is a “true-false” field, which is defined above as one type of parameter used in a conventional parametric search. As such, the yes-no field 70 of Witek is used to perform a parametric search.

The yes-no field 70 is a part of a record selection table 44, which is manifested to a user for data input via a selection parameter menu 140. Within the selection parameter menu 140 are a set of yes-no parameters 146, which correspond to the yes-no fields 70. By their vary definition, the yes-no parameters 146 are parameters, and as such, are used to perform a parametric search.

Within the Office Action, it is stated that the present specification discloses an example of a dichotomous key search being a yes no answer. However, as described above, this is only a partial definition of the dichotomous key search. A dichotomous key search, as part of the question answer format, can include a yes or no answer. However, the yes or no answer is in response to a single posed question, where the single question is the only question presented to the user. The answer to the single question leads to another, more specific, question related to the answer to the previous question. In contrast, the yes-no checkbox parameters 146 of Witek are a series of parameters which are all presented in parallel and are all answered in parallel.

There is no subsequent question posed which is based on the previous yes or no selection of the checkbox 146. Witek teaches a simultaneous selection of multiple yes-no parameters, e.g. parallelism.

By definition, a dichotomous key search, at any decision step, provides a binary choice, thus the term di-chotomous. The check box form of Witek (parameters 146), are part of a larger record selection step, where a plurality of check boxes are presented to the user. In this manner, the user is not presented with two choices, the user is presented with a yes-no option for a multitude of check boxes. So although each check box is a yes or no, the entire record selection presentation (e.g. selection parameter menu 140) includes multiple, simultaneous yes-no decisions to be made. Multiple yes-no selections are a parametric search, not a single, binary choice.

The independent claim 45 is directed to a method of formatting information within a directory tree structure. The method of claim 45 comprises the steps of formatting a searchable database into the directory tree structure, wherein the directory tree structure includes nodes comprising a collection of related data and branches comprising links between the nodes, further wherein each specific node provides a corresponding set of parameters by which each related item of data corresponding to the specific node is defined by setting each parameter with a corresponding value associated with the data item, thereby forming a set parameter, accessing a particular node within the directory tree structure utilizing a search module, the search module includes a keyword search, a hierarchical search, a dichotomous key search, and a parametric search, setting one or more search parameters corresponding to the set of parameters of the particular node, and performing a parametric search from any node within the directory tree structure using the one or more set search parameters corresponding to the particular node to match the one or more search parameters to the set parameters for each item of data corresponding to the particular node, thereby generating one or more matching discrete data items. As discussed above, Witek does not teach a search module that includes a dichotomous key search. For at least these reasons, the independent claim 45 is allowable over the teachings of Witek.

PATENT

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For the reasons given above, Applicant respectfully submits that claims 1-45 are now in a condition for allowance, and allowance at an early date would be appreciated. Should the Examiner have any questions or comments, she is encouraged to call the undersigned attorney at (408) 530-9700.

Respectfully submitted,
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